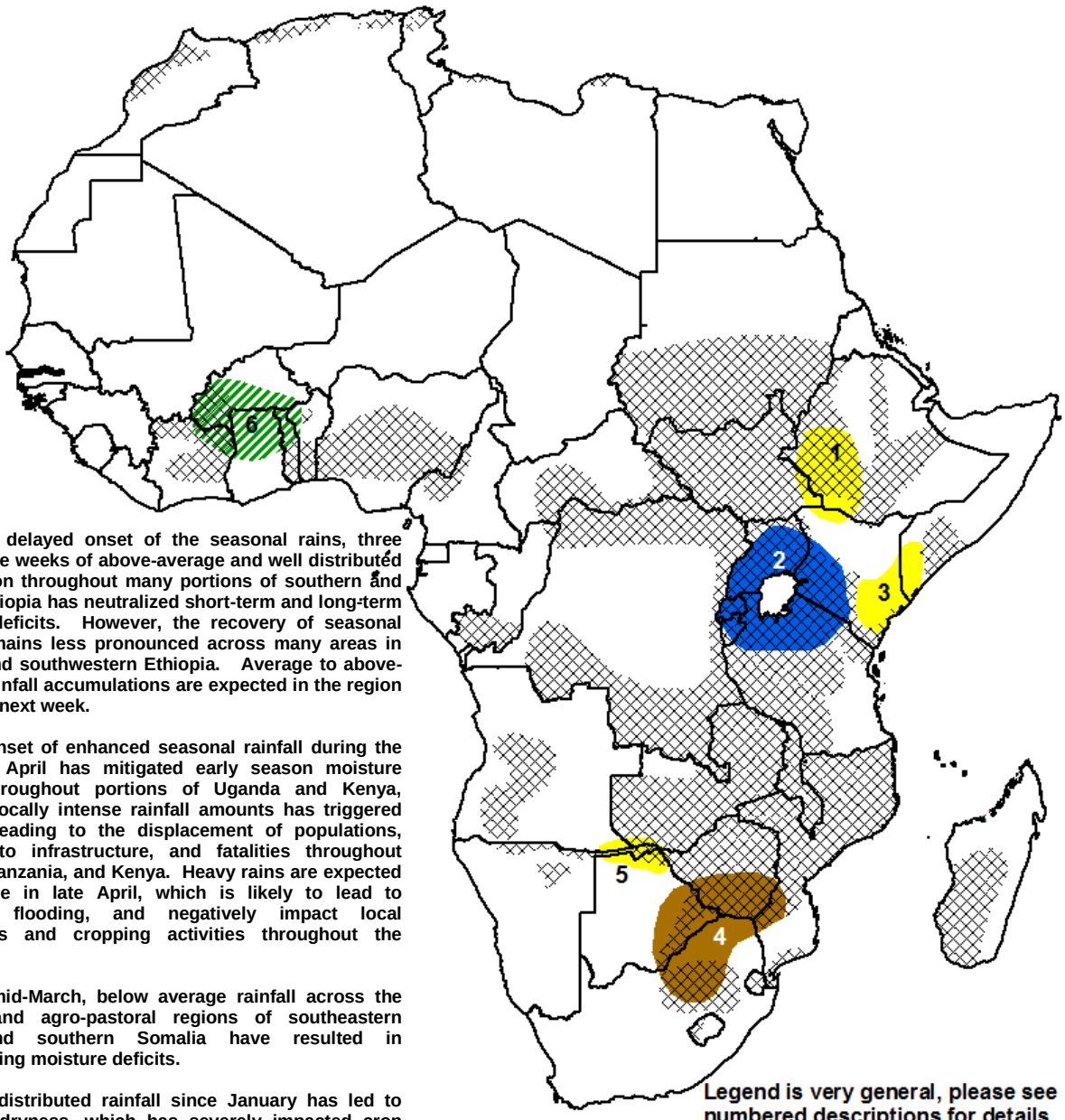
Climate Prediction Center's Africa Hazards Outlook
For USAID / FEWS-NET
April 26 – May 2, 2012

- **Excessive amounts of precipitation have triggered numerous floods across many local areas in East Africa.**



1) After a delayed onset of the seasonal rains, three consecutive weeks of above-average and well distributed precipitation throughout many portions of southern and central Ethiopia has neutralized short-term and long-term moisture deficits. However, the recovery of seasonal rainfall remains less pronounced across many areas in western and southwestern Ethiopia. Average to above-average rainfall accumulations are expected in the region during the next week.

2) The onset of enhanced seasonal rainfall during the middle of April has mitigated early season moisture deficits throughout portions of Uganda and Kenya, however, locally intense rainfall amounts has triggered flooding, leading to the displacement of populations, damages to infrastructure, and fatalities throughout Rwanda, Tanzania, and Kenya. Heavy rains are expected to continue in late April, which is likely to lead to additional flooding, and negatively impact local populations and cropping activities throughout the region.

3) Since mid-March, below average rainfall across the pastoral and agro-pastoral regions of southeastern Kenya and southern Somalia have resulted in strengthening moisture deficits.

4) Poorly distributed rainfall since January has led to long-term dryness, which has severely impacted crop development and harvest yields across portions of southern Zimbabwe, eastern Botswana, and central South Africa.

5) An early departure of seasonal rainfall has led to strengthening dryness during April across northern Botswana and the Caprivi Strip region of Namibia.

6) Enhanced rainfall across portions of northern Ghana, Cote d'Ivoire and Burkina Faso during April is expected to provide favorable ground conditions for land preparation and planting of seasonal crops.

Ongoing rainfall continues to relieve moisture stress, but also brings floods, negative impacts in East Africa.

During the last observation period, moderate to excessive amounts of precipitation were received across the Greater Horn of Africa. Widespread weekly precipitation amounts between 25-50mm were received across much of the domain, with heavy amounts upwards of 75mm observed in Uganda, South Sudan, southwestern Kenya, southern Somalia, and southwestern Ethiopia (**Figure 1**). The heaviest weekly rainfall was received in the Mwanza province of northern Tanzania (>200mm). Relatively lighter rainfall totals (10-30mm) were observed across southeastern Kenya, as well as throughout northern Ethiopia during the last seven days.

Since the beginning of April, much of East Africa has continued to observe the return of heavy rainfall following a very poor rainfall distribution observed during the month of March. Analysis of monthly precipitation anomalies between March and April show a reversal in the precipitation anomaly pattern, with a sharp increase in rains and available moisture, suggesting ongoing recovery throughout Kenya, Somalia and Ethiopia (**Figure 2**). For the third consecutive week, above average rains have led to considerable precipitation surpluses ranging between 10-50mm across the Greater Horn since the beginning of April, with the highest month-to-date anomalies (>50mm) observed in the Oromiya, eastern SNNP, Somali regions of Ethiopia, southwestern Kenya, northern Tanzania, and southern Somalia. For the season to date, analysis of water requirement of developing crops show satisfactory to more than sufficient conditions across portions of Uganda, southwestern Kenya and southwestern Ethiopia (**Figure 3**).

Despite the benefit of mitigating seasonal dryness, the return of enhanced rainfall during April has brought torrential rainfall amounts over a short period, negatively impacting many local areas around the Lake Victoria region. In northern Rwanda and in the Western, Nyanza, Rift Valley, and Eastern provinces of Kenya, rapid and intense rainfall amounts during the last week have triggered numerous floods, and have led to the displacement of populations, damages to infrastructure, and fatalities.

For the upcoming Outlook period, model forecasts suggest a continuation of above-average rainfall, sustaining the threat of floods in the region. The highest weekly rainfall accumulations are expected over many areas that have already received excessive rainfall (>100mm) during the last week. These areas include southwestern and western Kenya, northern Tanzania, Uganda, and the Shabelle region of southern Somalia. The potential for locally heavy rainfall during the next seven days (>100mm) over these saturated areas is likely to produce additional flooding, as well as possible damages to infrastructure and crops in late April.

Satellite Estimated Rainfall (mm)
Valid: April 16th – April 22nd, 2012

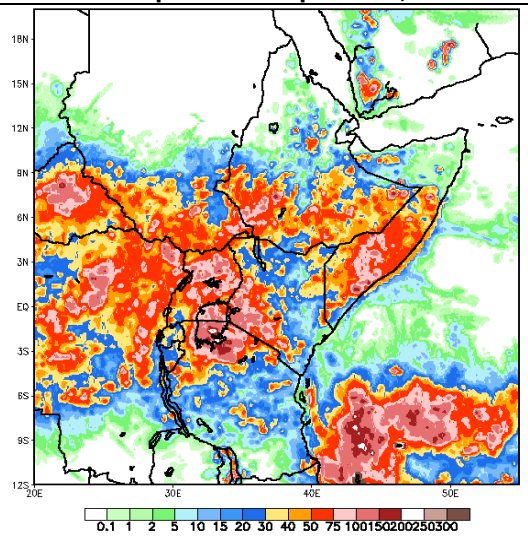


Figure 1: NOAA/CPC

Satellite Estimated Rainfall Anomaly (mm)
East Africa Monthly Anomaly Comparison

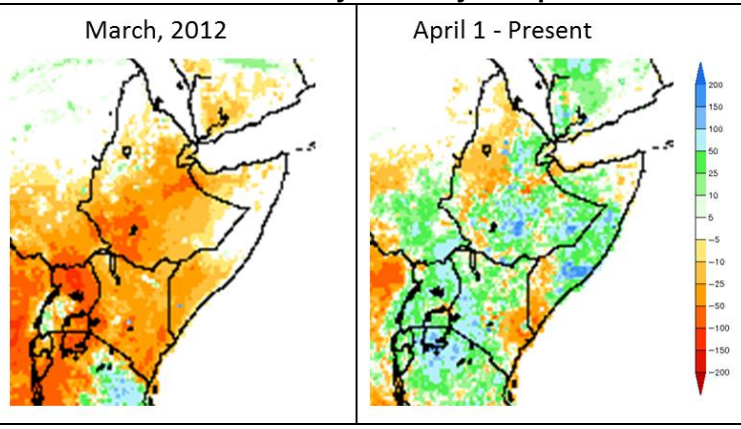


Figure 2: NOAA/CPC

Daily Water Requirement Satisfaction Index (WRSI)
Valid: As of April 19th , 2012

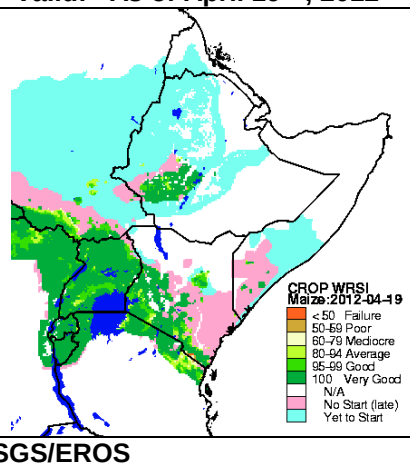


Figure 3: USGS/EROS

Note: The hazards outlook map on page 1 is based on current weather/climate information and short and medium range weather forecasts (up to 1 week). It assesses their potential impact on crop and pasture conditions. Shaded polygons are added in areas where anomalous conditions have been observed. The boundaries of these polygons are only approximate at this continental scale. This product does not reflect long range seasonal climate forecasts or indicate current or projected food security conditions.